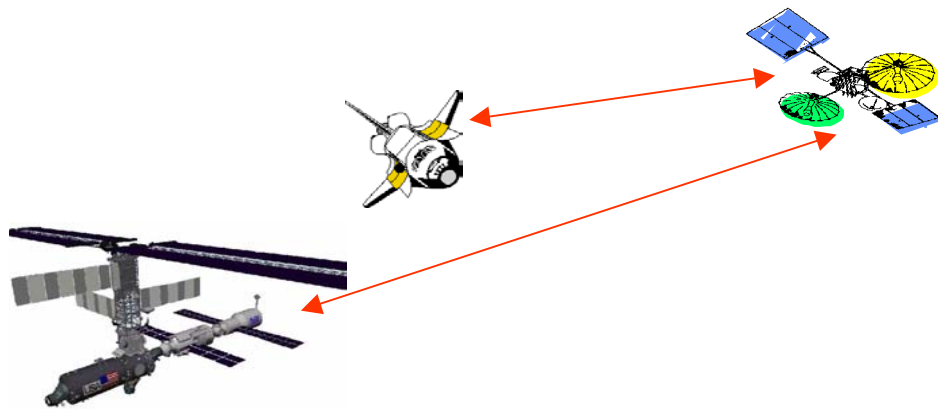




TDRSS

SCHEDULING



User Planning System (UPS)

Software Upgrade

Michael B. Duffey
Database Administrator
01-24-02

AGENDA

I. UPS SOFTWARE UPGRADE

- A. Release 13 – Development**
- B. JSC'S Viewpoint**

II. UPS PROJECT TIMELINE

- A. Incorporates Current Day status, and possible work windows for completion of testing.**

III. TEST AND REAL-TIME OPERATIONS

- A. Flight Following Mode**
- B. Mission Support**
- C. Recovery Operations**

UPS SOFTWARE UPGRADE

RELEASE 13 – Development

PURPOSE: To aide both the User Community, and the NCC Forecast Schedulers, by incorporating **flexibility** into the application software.

OBJECTIVE: For the User to provide more information, such as tolerances, priorities, etc., in the request, so that the NCC can better assist each customer, and provide better placement, as defined by their flexibility.

JSC'S VIEWPOINT

JSC's upgrade to Release 13 will provide the **Flexibility**, that will be needed for Future operations.

Flexibility, will be the answer to acquiring Scarce TDRS Resources.



UPS PROJECT TIMELINE

PRIOR TO L-14

MISSION MANIFEST

STS-109 = (02/28 - 03/11); (9)
STS-110 = (04/04 - 04/15); (9)
STS-111 = (05/02 - 05/12); (3)

GSFC UPS S/W (Ver. 13) Installation

Release 13 software successfully loaded on UPSB, on
10-31-01.

(IP) Test C/o with DSMC.

Router-to-Router interface test only, were performed with
the DSMC on **01-17-02.**

Release-11 S/W Testing, with DSMC

Testing will resume on **02-05-02.** All scheduling functions
for **Release 11** will be validated.

ANCC Release-13 Test Checkout

Test Director, Bill Gainey to provide JSC with Schedule for
testing **Release 13.**

Operational Readiness Eval.

Documentation will be provided to the NCC, and the **FRR**
for meeting Flight Operations.

UPS PROJECT TIMELINE
















Time
Now

(L-14)

(L-14)

(L-14)

2001 / 2002	OCT. / NOV. / DEC.	JANUARY	FEBRUARY	MARCH	APRIL	MAY
Flight Manifest			 STS-109 02-28	 03-11	 STS-110 04-04  04-15	 STS-111 05-02  05-12
GSFC UPS S/W (Ver. 13) Installation	 10-31-01					
(IP) Test C/o with WSC.		Ping only  01-17-02	 02-05-02			
Release-11 S/W Testing, with DSMC.			 02-05-02  02-14-02	 03-12-02  03-21-02		
	Work window →		← 9 Days →	← 9 Days →	← 3 Days →	
ANCC Release-13 Test Checkout	JSC will coordinate efforts with Bill Gainey for Test Timeframe					
Operational Readiness Eval.			TBD			

Time
Now

TEST AND REAL-TIME OPERATIONAL PLAN

NO FLIGHT FOLLOWING MODE

Release 13 cannot be flown in the **Flight Following Mode** of Operation for the following reasons:

- A. The NCC has to perform a software switch, to define JSC as a Full-service Support Customer, vice a Base-Line Customer.
- B. The NCC can only provide messaging back to a singular HOST machine.
- C. Message Formats are Different between Releases.



TEST AND REAL-TIME OPERATIONAL PLAN

TESTING

- JSC will perform extensive Testing with the **ANCC**
 - a. Testing will include all phases of scheduling operations.
- After proof of concept, JSC will perform real-time test scenarios, both with Real-time and NCC Forecast Schedulers.

MISSION SUPPORT

- JSC will configure both Prime and Backup machines with **Release 13**.
- Synchronization checks will be done, on both Prime, and Backup machines, prior to conducting any Real-time operations.
- Database Backups will be performed each (8) hour period to keep data loss to a minimum.



TEST AND REAL-TIME OPERATIONAL PLAN

RECOVERY OPERATIONS

- Both HOST machines will have **Fallback** capabilities to Release 11.
- The NCC will have to change JSC back to a Baseline Customer.
- JSC, Software Recovery Operations, currently taking at least (1) day.
- NCC Database Recovery to JSC – (Not an Option).

POSSIBLE OPTION

- JSC will have the NCC Delete TDRS Events out (1) day at a time.
- JSC will perform rebuild operations, with Release 11, re-transmit events.

CONCERN

Can the NCC Delete SHO events, out of the Database, after JSC has been re-identified as a Baseline customer?

